

FRANKINA, N.S.; VOYTKEVICH, S.A.; GEL'PERIN, N.I.; OGORODNIKOVA, Ye.A.:
DUCHINSKAYA, Yu.I.

Separating C_{13} - C_{17} tetrachloroalkanes from telomer mixtures.
Trudy VNIISNDV no. 5:85-92 '61. (MIRA 14:10)
(Polymers) (Paraffins)

FRUMKINA, N.S.; ZELENETSKIY, H.N.; VOYTKEVICH, S.A.; GEL'PERIN, N.I.

Separation of macrocyclic lactones by vacuum rectification.
Trudy VNIISNDV no.5:93-98 '61. (MIRA 14:10)
(Lactones) (Rectification)

KISELEVA, Ye.N.; GEL'PERIN, N.I.; SHESTAKOVA, V.A.; ZELENETSKIY, N.H.

Use of extraction by pairs of solvents for the purification of
phenyl ethyl alcohol. VNIISNDV no.5:102-107 '61. (MIRA 14:10)
(Phenethyl alcohol) (Extraction (Chemistry))

KASHNIKOV, V.V.; VOYTKEVICH, S.A.; GEL'PERIN, N.I.

Continuous method for manufacturing benzyl acetate. Trudy
VNIISNDV no.5:107-110 '61. (MIRA 14:10)
(Acetic acid)

GEL'PERIN, N.I.; ASSMUS, M.G.

Mass transfer in injector extraction columns. Khim.prom. no.5:348-350
My '61. (MIRA 14:6)

(Extraction apparatus)

(Mass transfer)

GEL'PERIN, N.I.; AINSHTEYN, V.G.

Analogy between a fluidized bed of granular material and a fluid-
particle system. Khim.prom. no.11:750-756 N '61. (MIRA 15:1)
(Fluidization)

GEL'PERIN, N.I.; KVASHA, V.B.

Determining and securing an optimum temperature field in chemical reactors. Khim.i tekhn. topl.i masel 6 no.2:39-45 F '61.

(MIRA 14:1)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V. Lomonosova.

(Chemical reaction, Heat of)

(Chemical engineering—Equipment and supplies)

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GEL'PERIN, N.I.; NIKIFOROV, V.A.

Absorption of CO_2 and H_2S from compressed gases by cooled methyl alcohol in a packed column. Gaz.prom. 6 no.4:39-45 '61.
(MIRA 14:3)

(Gases--Purification)

GEL'PERIN, N.I.; AYSNTEYN, V.G.; RAD'KO, A.I.

Controlled proportioning feeder delivering finely divided materials
to a fluidized bed. Zhur.VKHO 6 no.5:587-588 '61. (MIRA 14:10)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni
M.V.Lomonosova.

(Fluidization—Equipment and supplies)

GEL'PERIN, N.I.; GRISHKO, V.Z.

Using injector adsorption apparatus for removing carbon dioxide and
hydrogen sulfide from gas mixtures. Gaz. prom. 6 no.6:46-52 '61.
(MIRA 14:9)

(Adsorption apparatus) (Gas)

GEL'PERIN, N.I.; GRISHKO, V.Z.

Absorption of CO₂ and H₂S by water solutions of monoethanolamine.
Gaz. prom. 6 no. 12:46-51 '61. (MIRA 15:2)

(Absorption)
(Carbon dioxide)
(Hydrogen sulfide)

GEL'FERIN, N.I.; AINSHTEYN, V.G.; KLYUYEVA, L.M.

Determination of the specific gravity of ion exchange resins in a hydrated state. Zav.lab. 27 no.11:1375-1376 '61. (MIRA 14:10)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V. Lomonosova.

(Ion exchange resins)

KISELEVA, Ye.N.; GEL'PERIN, N.I.; SHESTAKOVA, V.A.

Removal of impurities from phenylethyl alcohol extraction with
vapor solvents in an injection column. Zhur. prikl. khim. 34 no.1:
167-172 Ja '61. (MIRA 14:1)

(Phenethyl alcohol)

BALAKHONTSEVA, V.N.; GEL'PERIN, N.I.

Separation of a mixture of polyatomic alcohols. Khim.prom.
no.2:86-88 F '62. (MIRA 15:2)
(Alcohols)

GEL'PERIN, N.I.; FEBALK, V.L.; KUZNETSOVA, M.I.

Rotary extraction column with alternating mixing packing-free
separation zones. Zhur.VKHO 7 no.1:114-115 '62. (MIRA 15:3)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni
Lomonosova.

(Extraction apparatus)

GEL'PERIN, N.I.,; AYNSTEYN, V.G.

Effect of the size and specific gravity of solid particles
on their coefficient of heat transfer toward gas in a
gluidised bed. Khim. i tekhn.topl.i masel 7 no.3:6-9 Mr '62.
(MIRA 15:2)

1. Monkovskiy institut tonkoy khimicheskoy tekhnol. ~~im.~~
M.V. Lomonosova.

(~~fluidization~~)

~~Transmission~~)

S/080/62/035/003/007/024
D258/D302

AUTHORS: Gel'perin, N. I., Assmus, M. G., and Korovin, S. S.

TITLE: Recovery of gallium by the method of liquid extraction
in a continuously operated injector column

PERIODICAL: Zhurnal Prikladnoy khimii, v. 35, no. 3, 1962, 516-519

TEXT: The authors investigated the continuous, liquid-liquid extraction of gallium from aqueous solutions of a copper-bearing residue obtained in the course of aluminum electro-refining. A solution containing Ga (0.48 g/l), H_2SO_4 (7.2 N), Cl^- (67.7 g/l) and also V, Al, SO_4^{2-} , Fe, Mo, Cu and SiO_2 was brought up to a Cl^- content of 96.6 g/l and diluted until its H_2SO_4 concentration was 6 N. This solution and butyl acetate were injected, counter-currently and continuously, at the top and bottom, respectively, of a 900 mm column designed by N. I. Gel'perin and coworkers (Ref. 1: Khim. nauka i prom. 5, 560, (1956)). The gallium-bearing extract was continu-
Card 1/2

Recovery of gallium ...

S/080/62/035/003/007/024
D258/D302

ously withdrawn near the top. Recovery of gallium varied slightly with the volume ratio of butyl acetate to aqueous solution, namely, from 96% at a ratio of 0.23 to 99.5% at 0.92. The increase in phase ratio was accompanied by a decrease in the Ga concentration in the extract - from 2.062% at the lowest mentioned ratio to 0.619% at the highest one; at the same time, Ga in the aqueous phase decreased from 0.014% to 0.005%. The withdrawal of samples at different points of the column showed an almost linear relationship of solvent concentration with column height. The same column was used for the re-extraction of Ga from butyl acetate by means of water; a complete recovery was achieved with a water/acetate ratio of 0.20. Adaptation to industrial plant scale was discussed. There are 3 figures, 2 tables and 3 Soviet-bloc references.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii.
M. V. Lomonosova (The Moscow Institute of Fine Chemical Technology im. M. V. Lomonosov)

SUBMITTED: July 11, 1960

Card 2/2

BERANEK, Yaroslav, inzh.; SOKOL, Drakhomir [Sokol, Drahomir], inzh.;
AYNSHTEYN, V.G., kand. tekhn. nauk, [translator]; GEL'PERIN,
N.I., doktor tekhn. nauk, prof., red.; TITSKAYA, E.F., ved. red.;
POLOSINA, A.S., tekhn. red.

[Techniques of fluidization] Tekhnika psevdoozhizheniia. Pod red.
N.I. Gel'perina. Moskva, Gostoptekhzdat, 1962. 159 p. translated
from the Czech. (MIRA 15:12)

(Fluidization)

GEL'PERIN, N.I., doktor tekhn.nauk; PEBALK, V.L., kand.tekhn.nauk;
SHASHKOVA, M.N.

Horizontal multistage tube-still extractor. Khim.prom.
no.6:427-433 Je '62. (MIRA 15:11)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V.
Lomonosova.

(Extraction apparatus)

GEL'PERIN, N.I., doktor tekhn.nauk; TYUFTIN, Ye.P., kand.tekhn.nauk

Method for calculating the concentrations of dissolvable
substances in a multistage countercurrent washing of
precipitates. Khim.prom. no.9:601-603 Ag '62. (MIRA 15:9)
(Chemistry, Technical)
(Leaching)

GEL'PERIN, N.I.; PODGAYETSKAYA, O.I.; DUBININ, M.K.

Dryer with a fluidized bed for sebacic acid. Khim.prom. no.9:
689-690 S '62. (MIRA 15:11)
(Nizhnyi Tagil--Sebacic acid)

GEL'PERIN, N.I.; AYNISHTEYN, V.G.

Thermal design of a pneumatic conveying tube. Khim.prom.
no.10:753-757 0 '62. (MIRA 15:12)
(Fluidisation--Equipment and supplies)

GEL'PERIN, N.I.; AYNSHTEYN, V.G.; ROMANOVA, N.A.

Hydraulics and heat transfer in a fluidized bed with an upright
tube bundle. Khim.prom. no.11:781-788 N '62. (MIRA 16:2)

(Fluidisation—Equipment and supplies)

(Heat—Transmission)

CHIZHOV, Ye.B.; BLYUMBERG, E.A.; GEL'PERIN, N.I.

Purification of acetic acid and the removal of formic acid from it.
Neftekhimiia 2 no.5:771-775 S-O '62. (MIRA 16:1)

1. Institut khimicheskoy fiziki AN SSSR.
(Acetic acid) (Formic acid)

GEL'PERIN, N.I., prof.; ZELIKSON, G.M.; RAPOPORT, L.L.; YANTOVSKIY,
S.A., red.; KOGAN, V.V., tekhn. red.

[Manual on the low-temperature separation of gas mixtures]
Spravochnik po razdeleniiu gazovykh smesei metodom glubokogo
okhlazhdeniia. Izd.2. perer. Pod obshchei red. N.I.Gel'perina.
Moskva, Goskhimizdat, 1963. 512 p. (MIRA 16:7)
(Gases--Separation)

GEL'PERIN, N.I.; FEBALK, V.L.; ROZOV, V.N.; ASSMUS, M.G.; MILOVANOV, I.B.

Extractive purification of nickel solutions from iron and
copper impurities. TSvet.met. 36 no.2:37-42 F '63.

(MIRA 16:2)

(Nickel—Electrometallurgy) (Electrolytes)
(Extraction (Chemistry))

GEL'PERIN, N.I.; PODGAYETSKAYA, O.I.; DUBININ, M.K.

Process of curing of pentaerythritol, polyvinylbutyral, and emulsion
polystyrene in suspension. Plast.massy no.4:31-34 '63. (MIRA 16:4)
(Polymers—Drying) (Suspensions (Chemistry))

GEL'PERIN, N.I., doktor tekhn.nauk; KRUGLIKOV, V.Ya., kand.tekhn.nauk;
AYNSHTEYN, V.G., kand.tekhn.nauk

Effect of the geometrical characteristics of a fluidized bed
and of a surface of heat transmission on heat transfer between
the bed and the surface placed into the bed. Nauch.zap.
Ukniiproekta no.8:23-33 '62. (MIRA 16:1)
(Fluidization) (Heat---Transmission)

GEL'PERIN, N.I., doktor tekhn.nauk; KRUGLIKOV, V.Ya., kand.tekhn.nauk;
AYNSHTEN, V.G., kand.tekhn.nauk

Heat transfer between the fluidized bed and a single tube
placed into the bed. Nauch.zap.Ukrniiproekta no.8:34-47 '62.
(MIRA 16:1)

(Fluidization)

(Heat—Transmission)

GEL'PKRIN, N.I.; IDEL'SON, Ye.M.; LIVSHITS, A.K.; BORISENKO, A.T.;
ZIL'BERG, V.I.

Improved method for the production of xanthates. Report no.4:
Preparing xanthates by the continuous method from isobutyl,
butyl SK, and isopropyl alcohol. Sbor. nauch. trud. Gintsvet-
meta no.19:255-262 '62. (MIRA 16:7)

(Xanthic acid)

GEL'PERIN, N.I.; PEBALK, V.L.; CHICHERINA, T.G.

Packed pulse columns for extraction. Khim. prom. no.2:111-115
F '63. (MIRA 16:7)

(Packed towers) (Extraction(Chemistry))
(Mass transfer)

ZAK, M.S., inzh.; LEYZEROVICH, G.Ya., kand.tekhn.nauk; GEL'PERIN, N.I.,
doktor tekhn.nauk, prof.

Study of a cold model of a double-chamber reactor for roasting
in a fluidized bed. Khim.mashinostr. no.3:8-12 Ky-Je '63.
(MIRA 16:11)

GEL'FMAN, N.I., doktor tekhn.nauk, prof.; AYNISHTEYN, V.G., kand.tekhn.nauk;
KVASHA, V.B., kand.tekhn.nauk; KOGAN, A.S., inzh.; VIL'NITS, S.A., kand.
tekhn.nauk

Apparatus for classifying free-flowing materials in a fluidized bed.
Khim.mashinost. no.6:11-16 N-D '63. (MIRA 17:2)

KASHNIKOV, V.V.; GE/PERIN, N.I.; ZHUCHKOVA, O.N.

Characteristic of the process of saponification of benzyl
chloride. Trudy VNIISNDV no.6:150-156 '63. (MIRA 17:4)

GEL'PERIN, N.I.; PEBALK, V.L.

Calculation of the processes of rectification of binary mixtures
in the $y - x$ diagram. Khim. prom. no.6:440-445 Je '63.

(MIRA 16:8)

(Distillation, Fractional)
(Plate towers)

GEL'PERIN, N.I.; DUBININ, M.K.; POBOVITSKAYA, O. .

Continuous drying of free-flowing polymeric materials in a fluidized
bed and in suspension. Khim. prom. no.10:770-775 O '65.
(MIRA 1965)

GEL'PERIN, N.I.; AYSNTEYN, V.G.; ROMANOVA, N.A.

Hydraulics and heat exchange in a fluidized bed with bundles of
vertical pipes. Khim.prom. no.11:823-830 '63. (MIRA 17:4)

GEL'PERIN, N.I.; PEBALK, V.L.

Problem of the average driving force of countercurrent mass transfer processes. Zhur. VKHO 8 no.5:595-596 '63.

(MIRA 17:1)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni Lomonosova.

GEL'PERIN, N.I.; PEBALK, V.L.; BARANOVA, Z.P.

Study of mass transfer in rotating disk extractors. Khim. i
tekh. topl. i masel 8 no.6:46-52 Je '63. (MIRA 16:6)

1. Institut tonkoy khimicheskoy tekhnologii im. M.V. Lomonosova.
(Extraction apparatus)
(Mass transfer)

GEL'PERIN, N.I.; AINSHTEYN, V.G.; ROMANOVA, N.A.

Method of determining the hydraulic resistance of a
fluidized bed. Khim. i tekhn. topl. i masel 8 no.9:16-20
S '63. (MIRA 16:11)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im.
M.V. Lomonosova.

MILOSERDOV, P.N., inzh.; NAUMENKO, P.V., inzh.; GEL'PERIN, N.I., doktor
tekhn.nauk

Distillation and rectification of synthetic fatty acids. Masl.-
zhir.prom. 29 no.11:16-22 N '63. (MIRA 16:12)

1. Volgodonskoy filial Vsesoyuznogo nauchno-issledovatel'skiy i
proyektnyy institut sinteticheskikh zhirozameniteley (for Milo-
serdov). 2. Gosudarstvennyy komitet po pishchevoy promyshlennosti
pri Gosplane SSSR (for Naumenko). 3. Moskovskiy institut tonkoy
khimicheskoy tekhnologii imeni M.V.Lomonosova (for Gel'perin).

GEL'PERIN, N.I.; ZELENETSKIY, N.N.

Regularities of the process of mass transfer during vacuum
rectification in packed columns. Zhur. prikl. khim. 36
no.11:2445-2456 N '63. (MIRA 17:1)

GEL'PERIN, N. I.; PEBALK, V. L.; YURCHENKO, L. P.; ASSMUS, M. G.; BARANOVA, Z. P.;
SHASHKOVA, M. N.; CHICKERINA, T. G.; ZAMYSHLYAYEV, V. G.; CHEKHOMOV, Yu. K.;
KUZNETSOVA, M. I.

"Investigations in the field of the technique of liquid extraction."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12
May 1964.

Moscow Inst of Light Chemical Technology.

RAZUMOV, Isay Moiseyevich; GEL'PERIN, B.I., zasl. dokt. nauk
i tekhniki doktor tekhn. nauk, prof., retserezent;
TITSKAYA, B.F., ved. red.

[Fluidization and pneumatic conveying of free-flowing
materials] Psevdoozhizhenie i pnevmaticheskii transport
sypuchikh materialov. Moskva, Khimiia, 1964. 159 p.
(MIRA 17:9)

GEL'PERIN, N.I., doktor tekhn. nauk, prof.; AYNSHTEYN, V.G., kand. tekhn.
nauk; GOYKHMAN, I.D., inzh.

Investigating the fluidization of granular materials in a field
of centrifugal forces. Khim. i nef. mashinostr. no.1:13-16
Jl '64. (MIRA 17:12)

GEL'PERIN, N.I.; AYNCHTEYN, V.G.; ROMANOVA, N.A.

Effect of the height of the heat exchanger surface on the
coefficient of heat transfer in the fluidized bed. him.
prom. no.2:101-104 F '64. (MIRA 17:9)

GEL'PARIN, N.I.; VORONOV, S.A.; Principal author: KRASIL'NIKOV, V.A.

Longitudinal mixing in a column extractor with vibrating plates.
Khim. prom. no.5:360-364 My '64. (MIRA 17:9)

GEL'PERIN, N.I.; AYNSTEYN, V.G.

Two-phase theory of fluidization. Zhur. VKHO 9 no. 3:356 '64.
(MIRA 17:9)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni
Lomonosova.

MILOSERDOV, P.N., inzh.; GEL'PERIN, N.I., doktor tekhn.nauk

Development of optimum conditions for the rectification of synthetic fatty acids. Report No.1. Masl.-zhir.prom. 30 no. 17-22 F '64. (MIRA 17:3)

1. Volgodonskoy filial Vsesoyuznogo nauchno-issledovatel'skogo i proyektnogo instituta sinteticheskikh zhirozameniteley (for Miloserdov). 2. Institut tonkoy khimicheskoy tekhnologii imeni M.V.Lomonosova (for Gel'perin).

MAKALOV, G.N., inzh.; GELMAN, E.I., doktor tekhn. nauk; YEREMIN, V.G.,
kand. tekhn. nauk

Heat exchange between particles and the liquefying agent in a
fluidized bed. Khim. i nefte. mashinostr. no.4:18-22, 1966.
(NND 17:12)

53868-55 EWT(1)/EWP(2)/EWT(3)/EWA(4)/EPR/EWT(5)/EWT(6)/EWA(1) Pd-1/

Pe-4/Pl-4 JD/WW

ACCESSION NR: AP5017239

UR/0170/64/000/007/0015/0019

AUTHOR: Gel'perin, N. I.; Aynatsyn, V. G.; Goykhan, I. I. 40
B

TITLE: Range of existence of a fluidized bed

SOURCE: Inzhenerno-fizicheskii zhurnal, no. 7, 1964, 15-19

TOPIC TAGS: fluid mechanics

ABSTRACT: The article considers the range of existence of fluidized beds on the basis of the range of the fluidized state as a function of particle size and the limiting polydispersion number as a function of the velocity of the fluidizing agent. The results are given as ratios of dimensionless quantities. A comparison is made between the highest allowable fluidization numbers and polydispersion numbers found in earlier papers and those obtained in the present study. Orig. art. has: 10 formulas, 3 graphs.

ASSOCIATION: Institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova, Moscow
(Institute of Precision Chemical Engineering)

Cord 1/2 546: 20 Feb 64

AP5017239

GEL'PERIN, N.I.; PEBALK, V.L.; ROZOV, V.N.; ZAMYSHLYAYEV, V.G.; MILOVANOV,
I.B.

Extractive refining of a nickel electrolyte from iron and copper.
TSvet. net. 37 no.9:19-22 S '64. (MIRA 18:7)

GEL'PERIN, N.I., prof.; GRISHKO, V.Z., kand.tekhn.nauk

Absorption from gaseous mixtures. Zhur.VKHO 10 no.1:26-33 '65.
(MIRA 18:3)

GEL'FERIN, N.I.; PEBALK, V.L.; CHEKHOMOV, Ye.K.

Columnar mixing and settling extractor with vibratory perforated plates. Khim. prom. 41 no.1:37-41 Ja '65.

(MIRA 18:3)

GEL'PERIN, N.I., prof.; PODGAYETSKAYA, O.I., kand.tekhn.nauk; DUBININ, M.K.,
kand.tekhn.nauk

Latest in the technology of drying of polymeric materials.
Zhur. VKHO 10 no.2:195-202 '65.

(MIRA 18:6)

PEBAIK, V.L.; GEL'FERIN, N.I.; SHASHKOVA, M.N.; KUZNETSOVA, M.I.

Calculation of the processes of liquid extraction from multicomponent solutions. Khim. prom. 41 no.3:212-217 Mr '65. (MIRA 18:7)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni Lomonosova.

GAL'PERIN, D.I.; KUMAROV, I.D.; MA ALDIN, A.S.; AYDINLIDIN, S.S.

Heat and mass exchange in the fluidized bed and other dispersion systems. Khim.prom. 41 no.6:137-137 Ja '65.

(MIRA 18:8)

GEL'PERIN, N.I.; KVASHA, V.B.; KUMAROV, A.S.

Fluidization of granular materials in an apparatus with a rotating
distribution grid. Khim.prom. 41 no. 6:455-457, 1965.

(MIRA 18:8)

GEL'PERIN, N.I., doktor tekhn.nauk; PEBAIK, V.L., kand.tekhn.nauk; CHICHERINA,
T.G., kand.tekhn.nauk; SHASHKOVA, M.N., inzh.

Horizontal multistage atomizing extractor. Khim. i nef. mashinostr.
no.9:1-3 S '65. (MIRA 18:10)

GEL'PERIN, N.I.; KOMISSAROVA, L.N.; YURCHENKO, L.D.; MIROMENKO, A.P.;
KOROVIN, S.S.

Extraction of zirconium and hafnium from hydrochloric acid
solutions by acetophenone. Izv. vys. ucheb. zav.; khim. i
khim. tekhn. 8 no.3:402-406 '65. (MIRA 18:10)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni
Lomonosova, kafedra khimii i tekhnologii redkikh i rasseyan-
nykh elementov.

GEL'PERIN, N.I.; PEBALK, V.L.; ZAMYSHLYAYEV, V.G.; CHICHERINA, T.G.

Cylindrical mixer-sedimentation extractor. Zhur. VKHO 10
no.4:462-463 '65. (MIRA 18:11)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni
M.V.Lomonosova.

GEI'PERIN, N.I.; AYNSTEYN, V.G.

Calculation of the expansion of a layer in homogeneous
fluidization. Zhur.VKHO 10 no.4:475-477 '65.

(MIRA 18:11) ..

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii
imeni M.V.Lomonosova.

GEL'PERIN, N.I.; PEBALK, V.L.; ROZOV, V.N.; ZAMYSHLYAYEV, V.G.; SOKOLOVA,
T.O.; MILOVANOV, I.B.; YEPISHEVA, M.S.

Fractional reextraction of metals from complex metal soaps.

TSvet.met. 38 no.10:41-49 0 '65.

(MIRA 18:12)

L 04963-01 EWP(m)/EWP(j) RM
 ACC NR: AP6006724 (A) SOURCE CODE: UR/0303/66/000/001/0059/0063
 AUTHOR: Luchanskiy, L. N.; Gel'perin, N. I. 17
 ORG: none 13
 TITLE: Study of the continuous film-azeotropic method of polyesterification in the synthesis of alkyd resins
 SOURCE: Lakokrasochnyye materialy i ikh primeneniye, no. 1, 1966, 59-63
 TOPIC TAGS: polyester plastic, alkyd resin, esterification, varnish, azeotropic mixture
 ABSTRACT: The process of synthesis of glyptal resin No. 188 (TU MKhP 1819-48) and pontaphthalic varnish No. 170 A (TU MKhP 4123-53) was investigated. A column apparatus was used for the polyesterification. The latter was carried out in an inert solvent (xylone) which formed a heteroazeotropic mixture with water; the combination of conditions under which a liquid film was formed with azeotropic distillation of the water produced the most favorable conditions for the polyesterification reaction. The change in the acid number and viscosity of resin No. 188 was studied as a function of the feed rate and temperature. It is shown that in the synthesis of alkyd resins in a column apparatus by the film-azeotropic method, the decrease in the acid numbers of the esterification product occurs in a few minutes instead of the many hours required in an ordinary process, and that resin No. 188 can be produced in a rotor film-
 Card 1/2 UDC: 667.661.1

ACC NR: AP6006724

type column unit at 250-255°C. It is concluded that the possibility of considerably raising the temperature of the polyesterification reaction is one of the most important characteristics of the continuous process of synthesis in a column unit. Orig. art. has: 4 figures and 2 tables.

SUB CODE: 11/07/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 004

Card 2/2

GELAPERIN, N. L.

Hydraulic presses in the chemical industry Moskva, Gos. nauch.-tekhn. izd-vo
mashinostroit. lit-ry, 1949. 190 p. (50-15552)

TJ1460.G4

CEL'PERIN, N. V.

"Production of Crank Shafts for Tractor and Harvester Engines."

All-Union Conference of Foundry Workers, end of 1957. Moscow.
Mashinostroitel', 1958. No. 5, p. 48.

And Jack Lee NII TsKhM.

GEL'PERIN, N.V.; ZVOLINSKAYA, V.V.; PARFENOV, V.S.; SHERMAN, A.D.

Crankshaft founding procedure at the Vladimir Tractor Plant for
DW-30 engines. Lit. proizv. no.10:15-16 · O '60. (MIRA 13:10)
(Vladimir--Founding) (Crank and crankshafts)

S/128/60/000/010/008/016/XX
A033/A133

AUTHORS: Gel'perin, N. V.; Zvolinskaya, V. V.; Parfenov, V. S., and
Sherman, A. D.

TITLE: Technological process of casting crankshafts for the A8-30
(DV-30) engine at the Vladimirovskiy traktorny zavod (Vladimirov Tractor Plant)

PERIODICAL: Liteynoye proizvodstvo, no. 10, 1960, 16 - 17

TEXT: Based on the experience of the Khar'kov "Serp i molot" Plant, the Vladimirov Tractor Plant started the casting of crankshafts for the DV-30 engine. The authors enumerate the deficiencies occurring during the casting of the crankshaft for the CMA-7 (SMD-7) engine at the "Serp i molot" Plant and point out that the elimination of black spots by increasing the machining tolerances is not expedient; therefore, it is necessary to prevent the origination of black spots which can be attained by the desulfurization of the cast iron, bringing the S-content down to 0.008 - 0.005%. This is possible if the cast iron is smelted in a basic electric furnace. Attempts were made to eliminate the technical difficulties connected with the

Card 1/3

S/128/60/000/010/008/016/XX

A033/A133

Technological process of casting crankshafts...

production of magnesium-modified cast iron by using other modifiers, like cerium, tellurium, calcium, strontium, lithium, etc. Tests proved cerium and foundry alloys on the base of cerium to be the most suitable modifiers. In comparison with magnesium, cerium offers the following advantages: no metal ejection during modification; the assimilability of cerium amounts to not less than 30%; lower sensitivity of the cast iron to demodifiers; insignificant cast iron temperature drop during the modification process (between 20 and 40°C); uniform distribution of sulfur over the casting and absence of black spots on its surface. In order to maintain a constant chemical cast iron composition during the investigations basic cast iron of the following chemical composition (in %) was smelted in a 3-ton acid electric furnace: 3.5 - 3.8 C; 2.0 - 2.2 Si; 0.8 - 1.0 Mn; not more than 0.04 S. Then this cast iron was remelted in a 50-kg capacity acid induction furnace. The metal was heated to 1,480 - 1,450°C, the modifiers (composition: 5 - 7% Mg, 10% Fe, 40 - 50% Ce, the rest rare earths) amounting to 0.4 - 0.35% of the liquid metal weight was put on the ladle bottom. To remove cementite formations and increase the mechanical properties, the cast iron was subjected to additional modification by 0.3 - 0.4% C_W (Si) 75 ferrosilicium. After two minutes holding in the ladle the metal was poured into the crankshaft

Card 2/3

S/128/60/000/010/008/016/XX

Technological process of casting crankshafts... A033/A133

shell molds. Besides, specimens were cast to determine the macro- and microstructure and the mechanical properties. Table 1 shows the results obtained. The sand-resin mixture was prepared in a mixer of NIILITMASH design, model 821, the shell mold was made on a model 830 machine of NIILITMASH design. The cast crankshaft structure contained ledeburite cementite. The crankshafts were annealed as to the following conditions: holding at 950°C for 2 - 5 hours, cooling in the furnace to 630°C, holding at 630°C for 1 hour, cooling in the furnace to 450°C, further cooling in the air. In comparison to die-forged crankshafts 22 kg metal were saved with each cast crankshaft. The economic effect amounts to 15% of the crankshaft cost price. There are 4 figures, 2 tables and 4 Soviet-bloc references.

Card 3/3

GEL'PERIN, V.I., doktor tekhn. nauk; AYNSHTEYN, V.G., kand. tekhn. nauk;
GOYKHIMAN, I.D., inzh.

Speed of the beginning of fluidization and the expansion of a
fluidized bed in the field of centrifugal forces. Khim. i
neft. mashinostr. no.5:18-22 N '64 (MIRA 18:2)

L 3810-65 EWT(n)/EPF(c)/EWP(j)/T... Pc-4/Pr-4 RM
 ACCESSION NR: AP5014497

UR/0032/65/031/006/0758/0759
 620.171:1.05

AUTHORS: Rubshteyn, V. M.; Gel'perin, Ye. I.; Belynskiy, V. A.; Shteding, M. N.

TITLE: Spring-loaded dynamometer for testing of polymeric materials

SOURCE: Zavodskaya laboratoriya, v. 31, no. 6, 1965, 758-759

TOPIC TAGS: measuring apparatus, testing device, plastic material / EPV 2 11A
 potentiometer, EPV2 03 potentiometer

ABSTRACT: The dynamometer described here has been designed for rapid testing of plastic materials for elongation and breaking limit at temperatures between 20 and 200C. Lengths of the tested specimen varied with different material and could reach 160 mm. A detailed description and a drawing of the instrument are given. In testing, a specimen is placed in an 0.5-kw electric oven, heated for five minutes, and subjected to tension at the rate of 3 cm per minute. Length readings are taken with an accuracy of 0.5 mm. Change in length of the spring at a maximum force of 4 kg was 31 mm. Each 0.155-mm division of the round scale corresponded to 20 grams of force. Overall dimensions of the dynamometer are 880 x 240 x 144 mm, and its weight is 10 kg. Orig. art. has: 1 figure.

Card 1/2

L 53810-65

ACCESSION NR: AP5004497

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-khimicheskiy institut im. L. Ya. Karpova (Scientific Research Institute of Physical Chemistry)

SUBMITTED: 00

ENCL: 00

SUB CODE: MT

NO REF SOV: 000

OTHER: 000

9/01
Card 2/2

15.8510

S/191/62/000/010/007/010
B101/B186

AUTHORS: Shcherbakov, V. M., Mazur, S. V., Solomon, Kh. V., Gel'perina, V. M.

TITLE: Strength of glass-reinforced plastics. Humidity, atmospheric and high temperatures effects on the physicomachanical properties of glass-reinforced plastics

PERIODICAL: Plasticheskiye massy, no. 10, 1962, 37 - 43

TEXT: The authors examined glass-reinforced plastics of ЕФ-2 (BF-2) phenol resin, epoxy resin or cold-setting or thermo-setting ПН-1 (PN-1) polyester resin with T₁(T₁) glass fabric, satin glass fabric no. 8/3, or glass mats with the ratio warp : filling = 1: 1.5 as a filler, produced by vacuum, press, or contact techniques, with thicknesses of 3, 6 or 10 mm. Up to 120 days the samples were kept in water so as to test its effect on them, then their bending strength was studied according to ГОСТ 4648-56 (GOST 4648-56). Results: After 90 days, the drop in bending modulus of polyester and phenol resin was ~50 - 60%, that of epoxy resin ~15 - 19%. The Card 1/3

Strength of glass reinforced ...

S/191/62/000/010/007/010
B101/B186

effect of water is explained by its penetration into microcracks, especially liable to form in resins with poor adhesion to glass. The greatest drop in bending modulus occurs within the first 30 days. By keeping the samples in air for 14 days, their bending modulus restores by ~22 - 56%. Its determination is discussed, and the method by R. E. Chambers and E. I. McGarry (ASTM Bull., no. 238, 38 (1959), ibid., no. 233, 40 (1950)) is recommended. Pretreatment of T₁ glass fabric with organosilicon compounds such as liquid or gaseous vinyl trichloro silane, polyvinyl siloxane resin, vinyl triethyl silane, commercial PBC-9 (GV5-9) or 9-1 preparations improves its resistivity to water. Vinyl triethoxy silane may be added to polyester resin (3 - 5%) directly. Atmospheric influences were examined by keeping BF-2 and T₁ samples 20 months on the ground in the open air, but the effects were not classified under individual factors such as UV light, humidity, temperature, etc. The tensile strength and impact strength remained unchanged whereas the bending modulus showed a reduction of 11.5 - 23.4%. Short-period heating at 350 - 400°C for 1 - 2 min did not affect the strength, and in some samples the bending modulus was thereby even increased. Hence additional thermal treatment is recommended for such glass reinforced plastics as are to be used at high temperatures. Special techniques

Card 2/3

✓B

Strength of glass reinforced ...

3/191/62/000/010/007/010
B101/B186

for testing glass reinforced plastics at high temperatures, making allowance for the size of specimen, heating rate, and other conditions, are deemed necessary. There are 4 figures and 5 tables.

√B

Card 3/3

CHERNYSHEV, Ye.A.; VANGNITS, Ye.V.; GEL'PERINA, V.M.; PETROV, A.D.

Synthesis of bis(organochlorosilyl) derivatives of aromatic hydrocarbons and tris (trichlorosilyl) benzene. Izv. AN SSSR. Ser. khim. no.10:1807-1814 O '64. (MIRA 17:12)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

L 7887-66 EWT(m)/EPF(c)/EWP(j)/T/EWP(t)/EWP(b) IJP(c) RM/JD

ACC NR: AP5025042

SOURCE CODE: UR/0286/65/000/016/0085/0085

AUTHORS: Pakhomov, V. I.; Andrianov, K. A.; Gel'perina, V. M.

ORG: none

TITLE: Method for obtaining silicon-organic compounds containing the chain silicon-divalent organic radical-silicon. Class 39, No. 173954

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 85

TOPIC TAGS: organosilicon compound, polymerization, polymer, monomer

ABSTRACT: This Author Certificate presents a method for obtaining silicon-organic compounds containing the chain silicon-divalent organic radical-silicon, by treating silicon-organic monomers. To simplify the process and to increase the yield of polymer silphenyl monomers containing an alkyl group and more than one alkoxy group at each silicon atom are used as starting reagents. The disproportionation of the monomers is carried out at or above 200C in the presence of alkali catalysts.

SUB CODE: 07/ SUBM DATE: 13Jun64

Card 1/1

UDC: 678.84

L 00265-66 EPF(c)/ENT(j)/ENT(m)/T RM

ACCESSION NR: AP5013444

UR/0020/65/162/001/0079/0081

AUTHOR: Andrianov, K. A. (Academician); Pakhomov, V. I.; Gel'perina, V. M. 14.5.22
19

TITLE: Disproportion reaction--a new method of synthesis of silicoorganic polymers. Synthesis of polyphenylenesilanes 14.5.22
B

SOURCE: AN SSSR. Doklady, v. 162, no. 1, 1965, 79-81 14.5.22

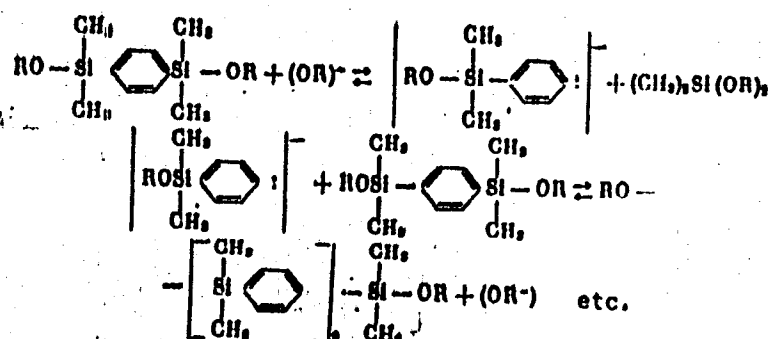
TOPIC TAGS: disproportion reaction, silicoorganic polymer, synthesis, polyphenylenesilane

ABSTRACT: Base catalyzed disproportionation of several bis-(dimethylethoxysilyl) benzenes is studied in an attempt to find new routes to the synthesis of polyphenylenesilanes. The ionic mechanism of this reaction is:

Card 1/4

I. 00265-66

ACCESSION NR: AP5013444



The reaction is catalyzed by KOH, alkali metal alcoholates, amines, etc. Disproportionation of 1,4-bis-(dimethylethoxysilyl)-benzene given a dimer (360 molecular weight) in a 48% yield. Disproportionation of $(\text{CH}_3)_2(\text{OC}_2\text{H}_5)\text{SiC}_6\text{H}_4\text{Si}(\text{OC}_2\text{H}_5)_3$ gave a polymer $[(\text{CH}_3)_2\text{SiC}_6\text{H}_4]_{0.2}[(\text{C}_2\text{H}_5\text{O})_2\text{SiC}_6\text{H}_4]_{0.8}$ in a 98.7% yield. The kinetics of the disproportionation reaction are shown in fig. 1 of the Enclosure. Orig. art. has: 1 figure.

Card 2/4

L 00265-66

ACCESSION NR: AP5013444

ASSOCIATION: Nauchno-issledovatel'skiy institut plasticheskikh mass (Scientific
Research Institute of Plastics) 4466 3

SUBMITTED: 14Jul64

ENCL: 01

SUB CODE: GC, OC

NO REF SOV: 000

OTHER: 003

Card 3/4

L 00265-66

ACCESSION NR: AP5013444

ENCLOSURE: 01



Fig. 1. I-- $(CH_3)_2(OC_2H_5)SiC_6H_4Si(CH_3)_2OC_2H_5$ at $200^\circ C$ and with 1% KOH; II-- $C_2H_5O(CH_3)_2SiC_6H_4Si(CH_3)_2OC_2H_5$ at $230^\circ C$ and with 1% KOH; III-- $(C_2H_5O)_2CH_3SiC_6H_4SiCH_3(OC_2H_5)_2$ at $230^\circ C$ and with 1.5% C_2H_5ONa ; IV-- $(C_2H_5O)_3SiC_6H_4Si(OC_2H_5)_3$ at $240^\circ C$ and with 1% KOH.

Card 4/4

ACC NR. AP6031157 (AN) SOURCE CODE: UR/0190/66/008/009/1618/1622 25

AUTHOR: Andrianov, K. A.; Pakhomov, V. I.; Gel'perina, V. M.; Mukhina, D. N.

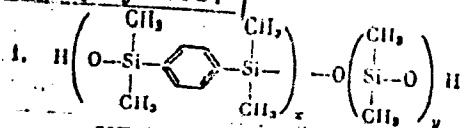
ORG: Scientific Research Institute for Plastics (Nauchno-issledovatel'skiy institut plasticheskikh mass)

TITLE: Catalytic polycondensation of 1,4-bis(dimethylhydroxysilyl)phenylene with diphenyldihydroxysilane and octamethylcyclotetrasiloxane

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 9, 1966, 1618-1622

TOPIC TAGS: polycondensation, catalytic polycondensation, copolymer, linear chain copolymer

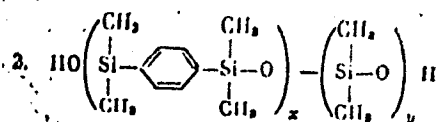
ABSTRACT: A study was made of the polycondensation reaction of 1,4-bis(dimethylhydroxysilyl)phenylene with octamethylcyclotetrasiloxane and diphenyldihydroxysilane in the presence of alkali catalysts. These interactions were found to produce the following linear chain copolymers:



Card 1/2

UDC: 541.64+678.84

ACC NR: AP6031157



The destruction of n-bis-(dimethylhydroxysilyl)phenylene was found to proceed much faster above 490C. Copolymers of 1,4-bis(dimethylhydroxysilyl)phenylene with octamethylcyclotetrasiloxane were found to form as a result of polycondensation as well as polymerization with opening of octamethylcyclotetrasiloxane. The polycondensation of compounds was studied at various ratios. Orig. art. has: 2 tables and 5 figures. [Based on authors' abstract]

SUB CODE: 07/ SUBM DATE: 23Jul65/ ORIG REF: 001/ OTH REF: 005/

Card 2/2 *old*

GEL'ROD, Samuil Markovich; ZARUBINA, Alla Georgiyevna; POBOLOTOV,
Vasiliy Vasil'yevich; KUDRYASHOV, R., otv. red.; SHATROVA, T.,
red. izd-va; LEBEDEV, A., tekhn. red.

[Collection of problems on the state budget] Sbornik zadach po gosudarstvennomu biudzhetu. Moskva, Gosfinizdat, 1961. 94 p.
(MIRA 14:12)

(Budget)

20200

10.9236

2808, 1963, 1963

S/042/61/027/003/020/025
B101/E203

AUTHORS: Gominov, V. N. and Kopylov, I. M.

TITLE: Causes of the high strength of thin metallic filaments

PERIODICAL: Zavol'skaya laboratoriya, v. 2, no. 5, 1961, 334-335

TEXT: On the basis of available experimental and theoretical data, the authors make assumptions on the nature of the strength of thin metallic filaments. They study the strength of metal microcrystals with diameters from 20-30 μ down to thousandth parts of a micron. Experiments showed that the strength of comparatively thick filaments (10 - 20 μ and more) did not differ from the strength of large crystals, i.e., from the values known in industry. In thin metallic filaments (10 μ and less), however, the strength increases, and may attain the theoretical strength of metal. Three hypotheses are discussed: 1) Effect of the surface tension. This hypothesis is refused since calculations have shown that the surface tension increases the strength of a crystal noticeably only in the case of thicknesses of some tenths of a micron. 2) High density of dislocations. This hypothesis, too, cannot be accepted because 1) a very even distri-

Card 1/1

20200

Causes of the high strength of ...

S/032/61/027/003/020/025
B*01/B203

tution of dislocations would have to exist since the slightest inhomogeneity causes a weakening of the metal, and b) the X-ray investigations showed that the lattice of thin metallic filaments was more perfect than that of massive crystals. 3) Great perfection of the lattice of the metallic filament. This assumption corresponds best to experimental data. Experiments by the authors and by foreign researchers showed that only metallic filaments up to diameters of 10^{-4} μ had a perfectly homogeneous cross section. Thicker filaments showed a laminated structure. The number of dislocations increases with increasing filament diameter. In this case, other defects such as pits and impurities occur, which mainly affect the surface. This led the authors to the assumption that the strength of metallic filaments depended on the size of their surface only. With the same surface, the strength did not depend on the diameter. Experiments (Fig.) confirmed this assumption. The dependence of strength on the surface applies more universally than the known dependence on the diameter and the decrease in strength with increasing length as stated earlier by the authors. This is explained by statistical factors which are also responsible for the spread of measured values. Crystals with

Card 2/3

20200

Causes of the high strength of ...

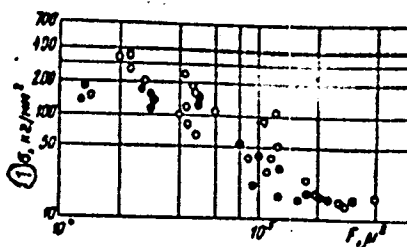
S/032/61/027/003/020/025
B101/3203

diameters of 20 - 30 μ and more should be excluded from the study of superstrong metal because of their laminated structure. It is further stated that the size factor of thin metallic filaments is of quite different nature from that of larger objects so that data cannot be compared with each other. There is 1 figure.

ASSOCIATION: Institut metallurgii im. A. A. Baykova Akademii nauk SSSR
(Institute of Metallurgy imeni A. A. Baykov of the Academy of Sciences USSR).

Legend to the figure:

o: $l = 2$ mm; \bullet : $d = 6.5 \mu$;
1) σ , kg/mm^2 .



Card 3/3

GEL' PERINA, I. I.

Hydraulic resistance of tar-fouled tower packing. *Tr. Vsesoyuzn. Nauch. Issled. Inst. Khim. Prom.*, 1957, No. 9, 27-7. — Gas flow pressure drops through packed towers as affected by the degree of fouling of the packing material with pitches and solid contaminants were studied with the use of a lab. column 1500 mm. high and 62 mm. inside diam., charged with Fe or steel spheres 4.8 or 0.1 mm. in diam. to which pitch layers ranging from 0.5 mm. to 5 mm. in thickness were artificially applied. Pressure drops of a controlled and variable stream of air from a rotary blower were measured with manometers placed at intervals of 250 mm. up the column. Volume ratios of metal sphere to total volume of the fouled sphere, K/H , ranged from 1:1.62 to 1:2.79, 1:3.05, 1:4.55 and 1:5.45. Results are plotted in the form $\log Eu = A - n \log Re$ where Eu (Euler's no.) is $\rho g / \mu v^2$. The exptl. work covered only the narrow range (viscous flow) in which $\log Eu$ and $\log Re$ had the values of 3.2 to 6.00 and 0.4 to 2.0, resp. The const. A equals $c n K / H$ where n , c and μ are functions of sphere diam. and film thickness, for example: for the 4.8-mm. sphere with a film of 0.5 mm. the values are 0.7, 4.3, and 3.0; 0.5 to 3.0 mm., 0.01, 4.2, and 1.9; 3.0 to 5.0 mm., 0.6, 4.2, and 0.6. H. I. Olin

L 24837-65 ENT(m)/EPF(c)/ENP(j)/T Po-Li/Pr-Li RM

ACCESSION NR: AP4047396

S/0062/64/000/010/1807/1814²⁰

AUTHOR: Cherny*shev, Ye. A.; Vangnits, Ye. V.; Gel'perina, V. M.; Petrov, A. D. ¹⁹_B

TITLE: Synthesis of bis(organochlorosilyl)derivatives of aromatic hydrocarbons and tris(trichlorosilyl)benzene

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 10, 1964, 1807-1814

TOPIC TAGS: benzene, benzene derivative, synthesis, high temperature condensation, disproportionation reaction, exchange reaction

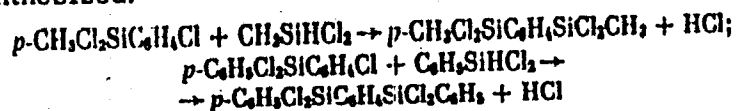
ABSTRACT: The high temperature condensation method described by Ye. A. Cherny*shev, V. F. Minorov and A. D. Petrov (Izv. AN SSSR. Otd. khim. n. 1960, 2147), wherein the reactants were contacted for about 30 seconds at about 580°C, was utilized in the synthesis of a series of p-bis(organochlorosilyl)benzenes and of tris(trichlorosilyl)benzene. Disproportionation reactions did not occur in these gaseous reactions between the organochlorosilyl benzenes and chlorosilanes; only the silyl groups were exchanged. Hence pure bis(organodichlorosilyl)ben-

Card:1/3

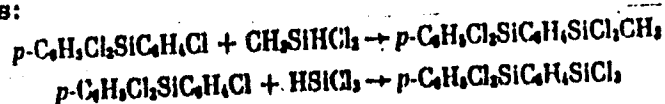
L 24837-65

ACCESSION NR: AP4047396

zenes were synthesized:



Gas phase condensation theoretically would not result in the synthesis of pure bis-silyl benzene derivatives having different methylchlorosilyl and trichlorosilyl groups on one benzene ring. But compounds with different organochlorosilyl groups were separated by their differences in boiling temperatures, e. g., in the following synthesis:



High temperature condensation of a four-fold excess of trichlorosilane with a mixture of dichlorophenyltrichlorosilane isomers gave a 13.5% yield of tris(trichlorosilyl)benzene which was methylated to tris(trimethylsilyl)benzene. The physical properties of the investigated compounds are tabulated. Orig. art. has: 1 table,

Card 2/3

L 24837-65

ACCESSION NR: AP4047396

1 figure and 10 equations

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii
nauk SSSR (Institute of Organic Chemistry, Academy of Sciences SSSR)

SUBMITTED: 21Jan63

ENCL: 00

SUB CODE: GC, OC

NO REF SOV: 003

OTHER: 002

Card 3/3

Category: 000
 Category: 000
 Also Known As: 000
 Author: 000
 Date: 000
 Title: 000
 Orig Ref: 000
 Abstract: 000

000 : 1/2

to cultures collected for their mechanical and serological properties but chiefly for their drug-resistance. A culture was made of these poliovirus (polio) in three courses consisting of three or four days. 26 children with chronic bronchitis were given large treatment 35 (9.1 g/6) were given daily 0.9 g/6) remained chronic carriers. -- Dr. I. Berezovsky.

000 : 2/2

8(

S/025/60/000/03/016/045
D048/D002

AUTHOR: Gel'shteyn, A. (Leningrad)

TITLE: With Academician Kostenko

PERIODICAL: Nauka i zhizn', 1960, Nr 3, pp 42 - 43 (USSR)

ABSTRACT: The author reports on the professional career and the work of the 70 year old prominent Soviet power-engineer, Lenin prize laureate, Academician Mikhail Poliyevktovich Kostenko, who took part in the development of all basic types of electric machines produced in the Soviet Union. He worked out the theory of the so-called synchronous twist and wrote many scientific papers. About 25 years ago he published the book "Kollektornyye mashiny" (Collector Machines). The Stalin prize was twice awarded to him. For more than 30 years Kostenko has headed the Department of Electric Machines in the Politekhnikheskiy institut imeni M.I. Kalinina (Polytechnical Institute imeni M.I. Kalinin) in Leningrad where he trained more

Card 1/3

S/025/60/000/03/016/045
D048/D002

With Academician Kostenko

than 400 engineers. For many years he has led the all-factory research office of the Zavod "Elektrosila" ("Elektrosila" Plant) and is a member of the plant's technical council. Furthermore, he acts as Chief electrician of the Khar'kovskiy elektromekhanicheskiy zavod (Khar'kov Electro-Mechanical Plant). Gao Tszin'-De, lecturer for power-engineering in Shanghai is mentioned as one of Kostenko's pupils. The author reports on a visit paid Academician Kostenko at the Institut elektromekhaniki Akademii nauk SSSR (Institute for Electromechanics of the AS USSR) of which he is the head. At Kostenko's laboratory, a miniature model of the Stalingradskaya GES (Stalingrad Hydro-electric Plant) is erected. In this connection, the author mentions that the Stalingrad GES will deliver a.c. to Moscow and d.c. to the Donbass. He refers to Professor Venikov of the Moskovskiy

Card 2/3

S/025/60/000/03/016/045
D048/D002

With Academician Kostenko

energeticheskiiy institut (Moscow Power Institute) who together with Kostenko worked out the pattern method which will be widely used in the electrification of the main lines of the RR of the country. A photo shows M.P. Kostenko. There is 1 photograph. ✓

Card 3/3

AUTHORS: Gel'shteyn, A.I., Temkin, M.I.

76-12-14/27

TITLE: Kinetics of the Chemical Interaction of Ethylene and Propylene with Sulfuric Acid (Kinetika khimicheskogo vzaimodeystviya etilena i propilena s sernoy kislotoy)

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1957, Vol. 31, Nr 12, pp. 2697-2705 (USSR)

ABSTRACT: The kinetics of reaction with the absorption of ethylene and propylene by sulfuric acid in the diffusion range was investigated here. The velocity of olefin absorption by the immovable liquid layer of great thickness under the constant pressure of the absorbing gas was measured. The problem investigated here can be formulated as follows: a gas dissolves in an immovable liquid and enters into reaction with the same, taking place at a velocity proportional to the concentration. The term which connects the observed speed of absorption with the constants of velocity of the chemical reaction is looked for. It is assumed that the absorption takes place with a great liquid excess. The reaction velocity between gas and liquid can therefore be expressed by an equation of first order. Further, it is assumed that the equilibrium between the gas phase and the liquid layer immediately adjacent to it sets suddenly and follows Henry's law. Provided that the thickness of the liquid

Card 1/3